ULTRA®

400WATT MICRO ATX POWER SUPPLY

User's Manual

BLOC D'ALIMENTATION MICRO ATX DE 400WATTS

Le Manuel D'Utilisateur

Installation

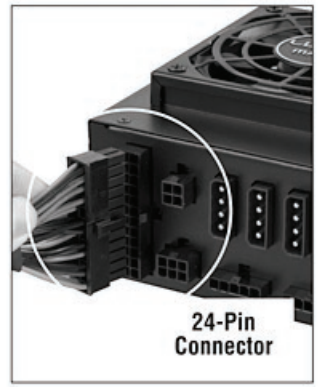
Step 1-1

Apply silicone vibration dampener to power supply unit.

Step 1-2

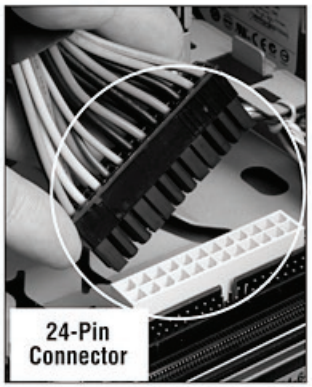
Affix the power supply to the case tightly with 4 screws included.

Step 2-1



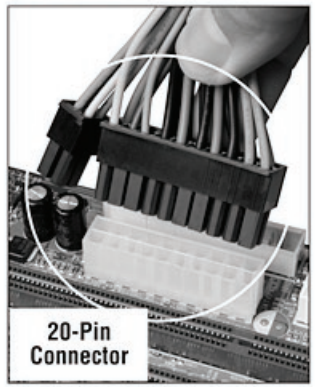
Connect the 24-Pin connector onto the X4 400 Watt Micro ATX Power Supply.

Step 2-2



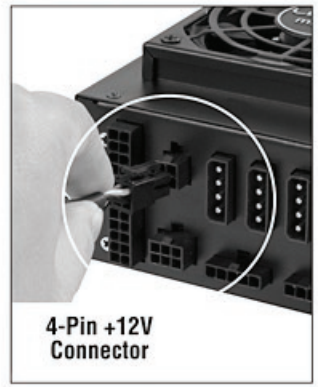
Plug the 24-Pin connector onto the motherboard If the motherboard requires a 24-Pin power connector.

Step 2-3



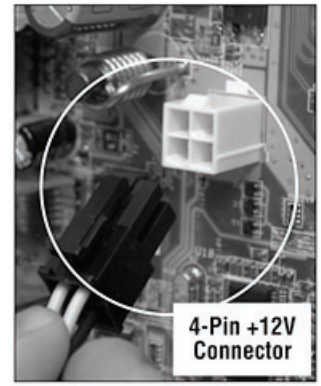
Plug the 20-Pin connector onto the motherboard.

Step 3-1



Connect the 4-pin +12V connector from 4-pin to 4-pin cable onto the X4 400 Watt Micro ATX Power Supply.

Step 3-2

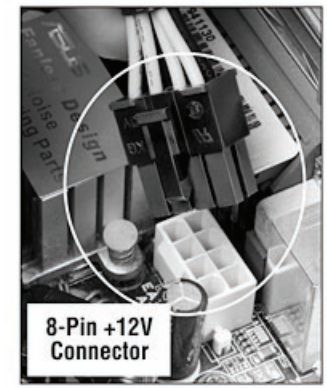


Connect the 4-pin +12V connector from 4-pin to 4-pin cable onto the motherboard.

Step 4-1

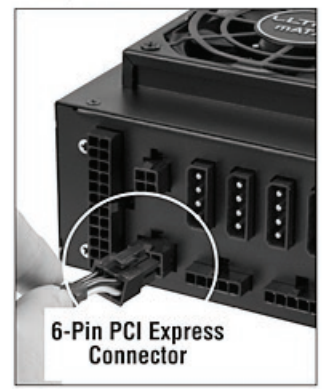
Connect the 4-pin +12V connector from 4-pin to 8-pin cable onto the X4 400 Watt Micro ATX Power Supply.

Step 4-2



Connect the 8-pin +12V connector from 4-pin to 8-pin cable onto the motherboard.

Step 5-1



Connect the 6-Pin PCI Express connector onto the X4 400 Watt Micro ATX Power Supply.

Step 5-2

6-Pin PCI Express connector for video card only.

Step 6-1

Connect the 4-pin Molex connector from 4-pin Molex to 4-pin Molex cable onto the X4 400 Watt Micro ATX Power Supply.

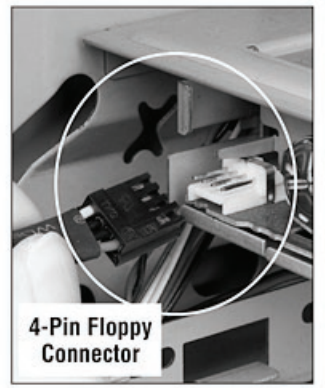
Step 6-2

Connect the 4-pin Molex connector from 4-pin Molex to 4-pin Molex Cable to Hard Drives, CD-ROM and Cooling Fans.

Step 7-1

Connect the 4-pin Molex connector from 4-pin Molex to 4-pin Floppy cable onto the X4 400 Watt Micro ATX Power Supply.

Step 7-2



Connect the 4-pin Floppy connector from 4-pin Molex to 4-pin Floppy Cable to Floppy Disk or Zip Drives

Step 10

Connect the power cord to a power source.

NOTE:
Do not remove the cover of the power supply.

Step 8-1

Connect the SATA connectors onto the X4 400 Watt Micro ATX Power Supply.

Step 8-2

SATA connectors used for SATA Hard Drives.

Step 9

Attach power cord to the power supply.

Intallation for ATX Case:

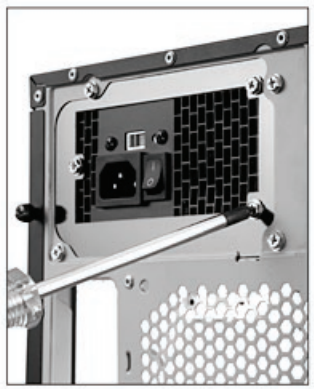
Step 1

Apply silicone vibration dampener to power supply unit.

Step 2

Affix the bracket onto Micro ATX Power Supply

Step 3



Affix power supply to the case.

Product Specification.

1.0 Input

Voltage Range

110/230Vac

STEADY STATE CURRENT:

Maximum Current at 115VAC (RMS): 7.5A
Maximum Current at 230VAC (RMS): 4.5A

FREQUENCY: 50Hz / 60Hz

POWER EFFICIENCY:

78%(max.) at typical load, 115/230Vac 60Hz/50Hz

2.0 OUTPUT

Max Output Current	+5V	+3.3V	+12V	-12V	+5VSB
	18A	16A	21A	0.6A	2A
Max Combined Wattage	130W		252W	7.2W	10W
	382W			18W	
	400W				

Output Current

Output Voltage	Min. [A]	Max. [A]
+3.3V	1	16
+5V	1	18
+12V	2	21
-12V	0	0.6
+5VSB	0.1	2

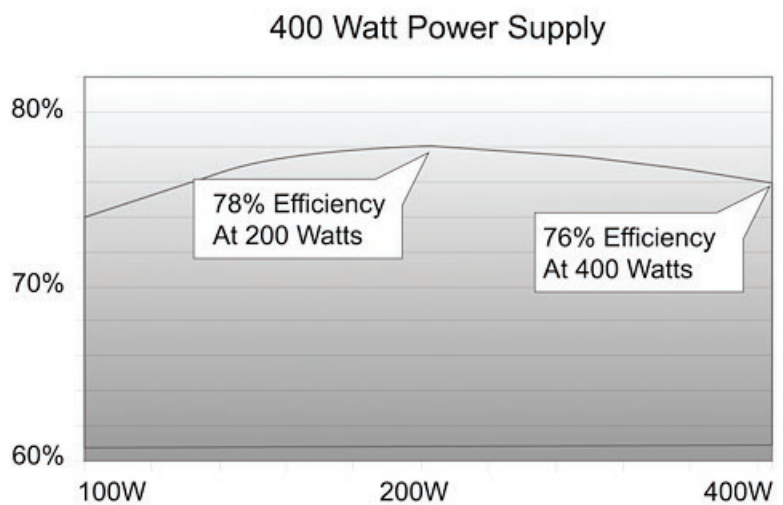
3.0 Protection

If the power supply latches into shutdown stage (when over current, over voltage or short circuit protection is working), the power supply shall return to normal operation only after the fault has been removed and re-applied.

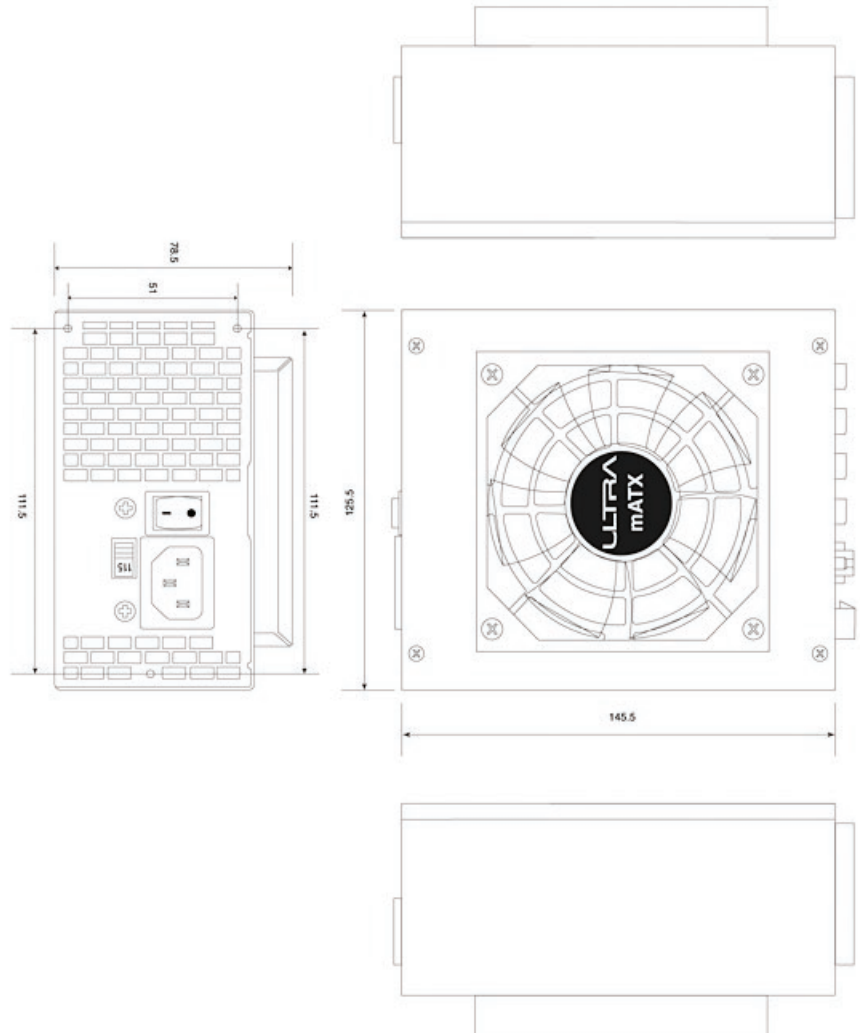
Over Voltage protection

SENSE LEVEL	OVER VOLTAGE
+5V	6.5V/max.
+12V	15.8V/max.
+3.3V	4.5V/max.

4.0 Power Supply Efficiency

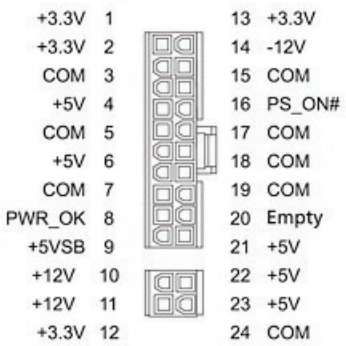


5.0 Power supply mechanism



6.0 Connector distributions

• Breakaway Motherboard Connector

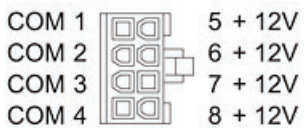


PIN	Description	AWG	PIN	Description	AWG
1	+3.3V	18	13	+3.3V	18
2	+3.3V	18	14	-12V	20
3	COM	18	15	COM	18
4	+5V	18	16	PS_ON#	20
5	COM	18	17	COM	18
6	+5V	18	18	COM	18
7	COM	18	19	COM	18
8	PWR_OK	20	20	Empty	Empty
9	+5VSB	18	21	+5V	18
10	+12V	18	22	+5V	18
11	+12V	18	23	+5V	18
12	+3.3V	18	24	COM	18

• 4-Pin +12V Connector

PIN	Description	AWG	PIN	Description	AWG
1	COM	18	3	+12V	18
2	COM	18	4	+12V	18

• 8-Pin +12V Connector

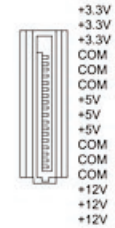


PIN	Description	AWG	PIN	Description	AWG
1	COM	18	5	+12V	18
2	COM	18	6	+12V	18
3	COM	18	7	+12V	18
4	COM	18	8	+12V	18

• 6 PCI-E Connector

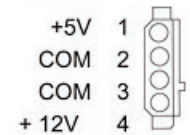
PIN	Description	AWG	PIN	Description	AWG
1	+12V	18	4	COM	18
2	+12V	18	5	COM	18
3	+12V	18	6	COM	18

• SATA Connector



Wir e	Description	AWG
1	+3.3V	18
2	COM	18
3	+5V	18
4	COM	18
5	+12V	18

• Peripheral Power



PIN	Description	AWG
1	+5V	18
2	COM	18
3	COM	18
4	+12V	18

• Floppy Connector

PIN	Description	AWG
1	+5V	20
2	COM	20
3	COM	20
4	+12V	20

7.0 Environment

Ambient operation temperature	0°… to +40°…
Ambient operation relative humidity	20% to 90%
Ambient storage temperature	-20°… to +85°…
Ambient storage relative humidity	10% to 95%

8.0 MTBF

MTBF 100,000 hours at 25°… (demonstrated)

* Safety certificate

CE
CB
UL 1950
IEC 60950
FCC Class B

Installation

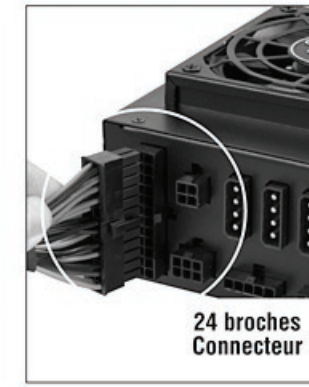
Étape 1-1

Appliquez le mouilleur de vibration de silicone à l'unité d'alimentation d'énergie.

Étape 1-2

Fixez l'alimentation électrique au boîtier fermement avec les 4 vis incluses.

Étape 2-1

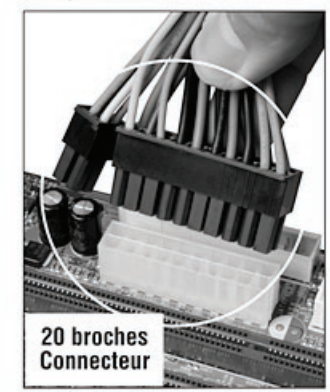


Branchez le connecteur 24-broches sur la Bloc d'alimentation Micro ATX de 400Watts

Étape 2-2

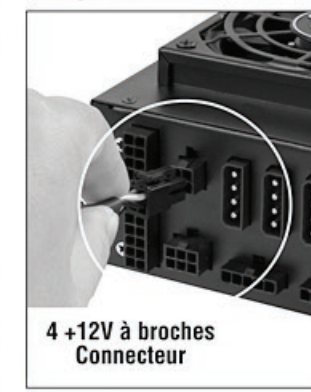
Branchez le connecteur à 24 bornes sur la carte mère. Si la carte mère requiert un connecteur d'alimentation à 24 bornes

Étape 2-3



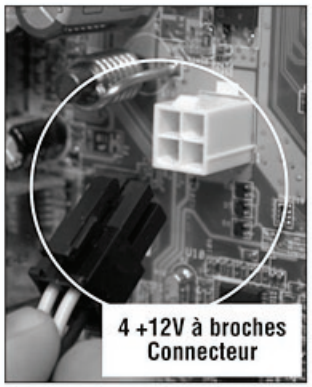
Branchez le connecteur à 20 bornes sur la carte mère

Étape 3-1



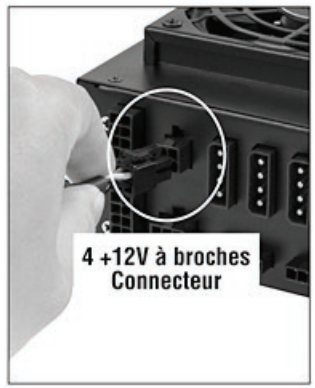
Branchez le connecteur 4-broches +12V de la 4-broches au 4-broches de c,ble sur la Bloc d'alimentation Micro ATX de 400Watts

Étape 3-2



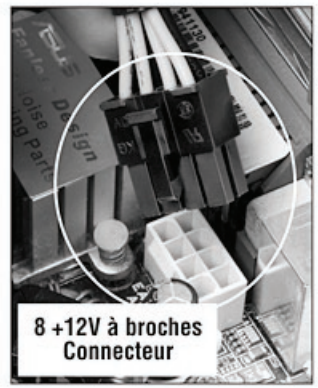
Branchez le connecteur 4-broches +12V de la 4-broches au 4-broches de câble sur la motherboard.

Étape 4-1



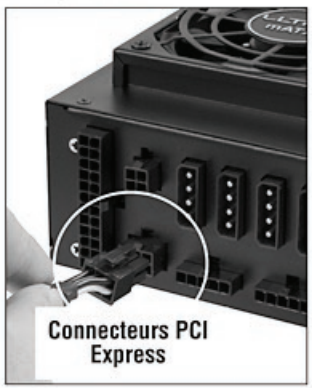
Branchez le connecteur 4-broches +12V de la 4-broches au 8-broches de câble sur la Bloc d'alimentation Micro ATX de 400Watts

Étape 4-2



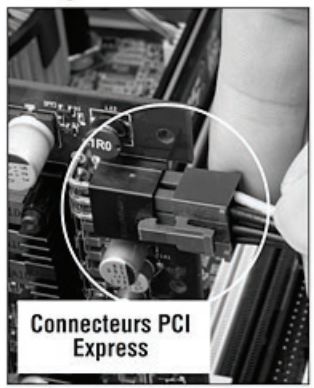
Branchez le connecteur 4-broches +12V de la 4-broches au 8-broches de câble sur la motherboard.

Étape 5-1



Branchez le connecteur de 6-broches PCI Express sur la Bloc d'alimentation Micro ATX de 400Watts

Étape 5-2



Connecteur PCI Express pour carte vidéo seulement

Étape 6-1

Branchez le connecteur de 4-broches Molex de la 4-broches Molex au 4-broches Molex de câble sur la Bloc d'alimentation Micro ATX de 400Watts

Étape 6-2

Branchez le connecteur de 4-broches Molex de la 4-broches Molex au 4-broches Molex de câble au la Unités de disque dur, CD-ROM et ventilateurs.

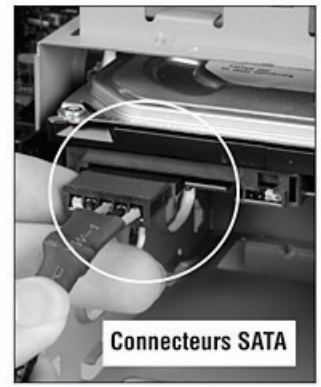
Étape 8-1

Branchez le connecteur de SATA sur la Bloc d'alimentation Micro ATX de 400Watts

Étape 7-1

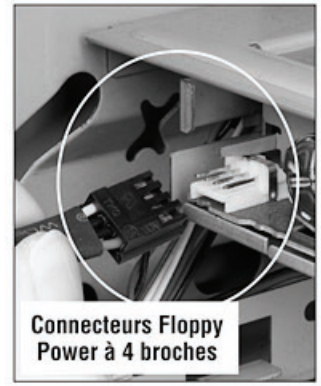
Branchez le connecteur de 4-broches Molex de la 4-broches Molex au 4-broches Floppy de câble sur la Bloc d'alimentation Micro ATX de 400Watts

Étape 8-2



Connecteur SATA utilisés pour disques durs SATA

Étape 7-2



Branchez le connecteur de 4-broches Molex de la 4-broches Molex au 4-broches Floppy de câble au la disquettes et lecteurs Zip

Étape 9

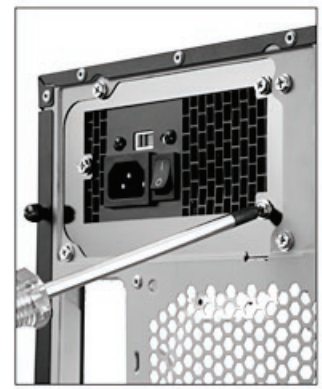
Reliez le cordon d'alimentation au bloc d'alimentation

Étape 10

Reliez le cordon d'alimentation à une source d'alimentation

NOTE:
Do not remove the cover of the power supply.

Étape 3



Alimentation d'Ènergie d'affixe au cas.

Intallation for ATX Case:

Étape 1

Appliquez le mouilleur de vibration de silicone à l'unité d'alimentation d'énergie.

Étape 2

Apposez la parenthËse sur l'alimentation d'Ènergie micro d'ATX

Spécification du produit

1.0 Entrée

Plage de tension

110/230Vac

Courant d'état stable:

Courant maximal à 115VAC (RMS): 7.5A
Courant maximal à 230VAC (RMS): 4.5A

Fréquence: 50Hz / 60Hz

Efficacité électrique:

78 % (Max). à charge typique, 115/230Vac 60Hz/50Hz

2.0 Sortie

Rendimento massimo corrente	+5V	+3.3V	+12V	-12V	+5VSB
	18A	16A	21A	0.6A	2A
Wattaggio massimo combinato	130W		252W	7.2W	10W
	382W			18W	
	400W				

Courant de sortie

Tension de sortie	Min. [A]	Max. [A]
+3.3V	1	16
+5V	1	18
+12V	2	21
-12V	0	0.6
+5VSB	0.1	2

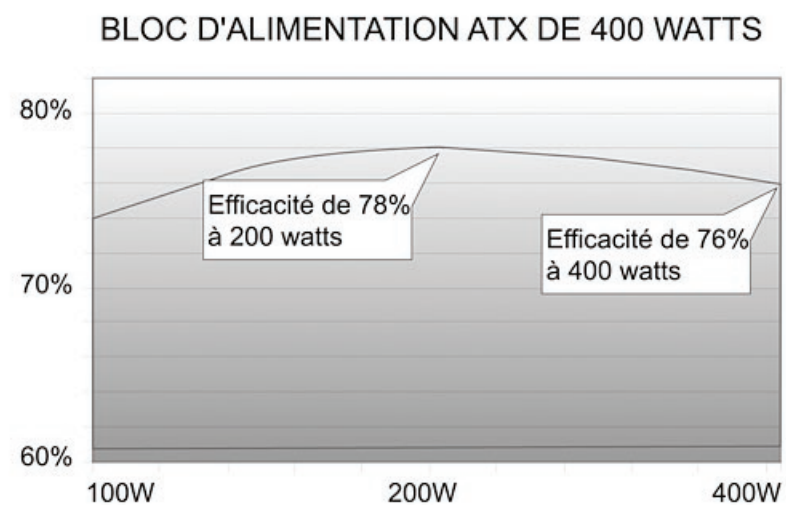
3.0 Protection

Si l'alimentation électrique se bloque à l'état éteint (lorsque la protection contre les sur-courants, les surtensions ou les courts-circuits fonctionne), l'alimentation électrique revient à son fonctionnement normal seulement une fois la panne supprimée et appliquée de nouveau.

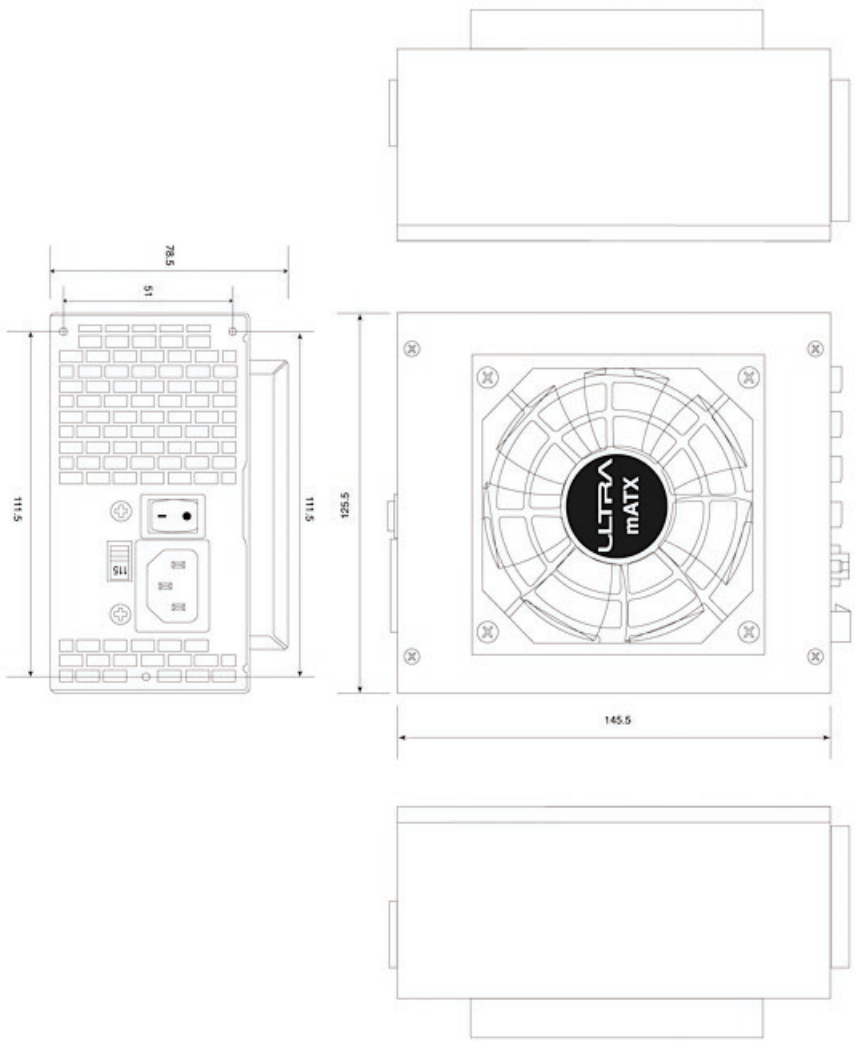
Protection contre les surtensions

Niveau de sens	Tension Finie
+5V	6.5V/max.
+12V	15.8V/max.
+3.3V	4.5V/max.

4.0 Efficacité d'alimentation d'énergie

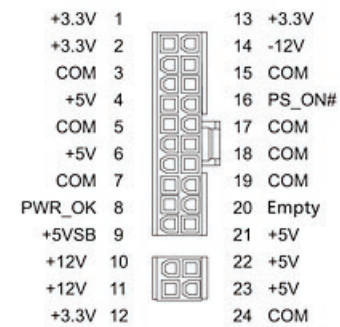


5.0 Mécanisme d'alimentation électrique



6.0 Distributions de connecteurs

• 20/24 broches Connecteur

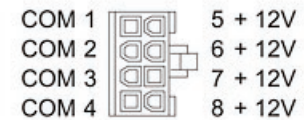


PIN	Description	AWG	PIN	Description	AWG
1	+3.3V	18	13	+3.3V	18
2	+3.3V	18	14	-12V	20
3	COM	18	15	COM	18
4	+5V	18	16	PS_ON#	20
5	COM	18	17	COM	18
6	+5V	18	18	COM	18
7	COM	18	19	COM	18
8	PWR_OK	20	20	Empty	Empty
9	+5VSB	18	21	+5V	18
10	+12V	18	22	+5V	18
11	+12V	18	23	+5V	18
12	+3.3V	18	24	COM	18

• 4 +12V à broches Connecteur

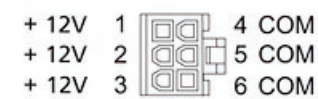
PIN	Description	AWG	PIN	Description	AWG
1	COM	18	3	+12V	18
2	COM	18	4	+12V	18

• 8 +12V à broches Connecteur



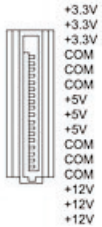
PIN	Description	AWG	PIN	Description	AWG
1	COM	18	5	+12V	18
2	COM	18	6	+12V	18
3	COM	18	7	+12V	18
4	COM	18	8	+12V	18

• Connecteurs PCI Express à 6 broches



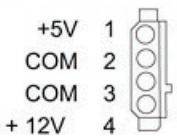
PIN	Description	AWG	PIN	Description	AWG
1	+12V	18	4	COM	18
2	+12V	18	5	COM	18
3	+12V	18	6	COM	18

• Connecteurs SATA



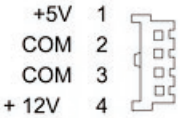
Wir e	Description	AWG
1	+3.3V	18
2	COM	18
3	+5V	18
4	COM	18
5	+12V	18

• Connecteurs Molex à 4 broches



PIN	Description	AWG
1	+5V	18
2	COM	18
3	COM	18
4	+12V	18

• Connecteurs Floppy Power à 4 broches



PIN	Description	AWG
1	+5V	20
2	COM	20
3	COM	20
4	+12V	20

7.0 Environment

Température ambiante de fonctionnement	0°… to +40°…
Humidité relative ambiante de fonctionnement	20% to 90%
Température ambiante de stockage	-20°… to +85°…
Humidité relative ambiante de stockage	10% to 95%

8.0 MTBF

MTBF 100,000 hours at 25°… (demonstrated)

* Certificat de sûreté

CE

CB

UL 1950

IEC 60950

FCC Class B